

**REMARKS**

**Status of the Claims**

Claims 19-44 are currently pending and under examination. Claims 1-18 have been canceled without prejudice or disclaimer of the subject matter claimed therein.

**Amendments to the Claims**

Claims 19-44 are new. Representative support for the new claims can be found as follows in the table below:

<b>Claim</b>	<b>Representative Support</b>
19	Original Claims 1 and 11; page 9, line 3 of the specification; and page 14, line 14 of the specification
20	Original Claim 2
21	Original Claim 3
22	Original Claim 4
23	Original Claim 5
24	Original Claim 6
25	Original Claim 7
26	Original Claim 8
27	Original Claim 9
28	Original Claim 10
29	Original Claim 11
30	Original Claim 12
31	Original Claim 13
32	Original Claim 14
33	Original Claim 15
34	Original Claim 16; and, page 17, lines 16-21 of the specification
35	Original Claim 17

36	Original Claim 18
37	Original Claim 3
38	Original Claim 3
39	Original Claim 6
40	Original Claim 8
41	Original Claim 9
42	Original Claim 14
43	Original Claim 14
44	Original Claim 1; page 14, lines 18-30 of the specification; and, page 17, lines 33-38 of the specification
45	Original Claims 1 and 6

The amendments to the claims do not add prohibited new matter.

#### Claim Objections

Claims 4-6 and 12-18 are objected to under 37 CFR 1.75(c) as being in improper form, allegedly due to a multiple dependent claim serving as the basis for another multiple dependent claim.

New claims 22-24 and 30-36 have replaced claims 4-6 and 12-18. Applicants have removed the multiple dependencies from all claims except for claim 22. Accordingly it is believed that the basis for this rejection is moot in view of these amendments.

#### Rejection under 35 USC § 112, second paragraph

Claim 3 is rejected under 35 USC § 112, second paragraph for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention.

The Office Action alleged that claim 3 was vague for reciting multiple ranges. New claim 21 corresponds to claim 3. Without acquiescing to the merits of the rejection, Applicants have deleted the additional ranges from claim 3 and have placed them in new dependent claims

37 and 38. It is therefore respectfully requested that this rejection be withdrawn.

Rejection under 35 USC § 112, first paragraph

Claims 1-3 and 7-11 are rejected under 35 USC § 112, first paragraph, for allegedly failing to enable the molecule of formula I wherein  $x=1$ .

The Office Action alleges that  $x=1$  requires fusion with the molecule of formula II. The Office Action alleges that formula II is related to biotin with the exception of two methyl groups attached to the bridging carbons. It is respectfully submitted that the structure of formula II was intended to be a biotin group and not a methylated variant. The claims, as amended, recite a biotin structure. Representative support for biotin can be found in the specification at page 9, line 3, page 14, line 14, claim 11, and in the working examples. It is respectfully submitted that biotin is well known in the art. Given that the specification has provided sufficient guidance and example, one skilled in the art would be able to make and use the compound of formula I without undue experimentation. It is therefore respectfully submitted that the claims, as amended, are enabled, and further it is respectfully requested that this rejection be withdrawn.

Rejection under 35 U.S.C. § 102(b)

A. Claims 1-3 are rejected under 35 U.S.C. § 102(b) as anticipated by Reboud-Ravaux *et al.* (Progress in Mol. and Subcellular Biol. 29: 109-125, 2002) ("Reboud-Ravaux").

The Office Action alleges that Reboud-Ravaux discloses compounds that are encapsulated by the claimed formula. Reboud-Ravaux discloses epoxomicin, dihydroeponemycin and PS-134. All three of these compounds comprise hydroxyl side chains, in addition to alkyl side chains and the amino acids of leucine, isoleucine, serine and phenylalanine.

The claimed invention discloses a compound having formula I, wherein X3, X5, and X6 must be present. Moreover, the compound at positions X1 and X3 comprise at least one hydroxyl function on the side chain, at position X2 comprises an alkyl side chain, at position X4 is a natural or synthetic amino acid with an aromatic side chain, and at positions X6, X7, and X8 are natural or synthetic amino acids in the D or L conformation. Further, the claims require that the X5 position of the compound be an amino acid in the D or L conformation, and that the

amino acid be chosen from lysine, arginine, histidine, aspartic acid, asparagine, glutamic acid or glutamine.

Reboud-Ravaux does not disclose a compound with an amino acid in the position of X5, as the currently claimed invention does. The Office Action acknowledges that X5 is not present in the compounds disclosed by Reboud-Ravaux. In contrast to the compound of Reboud-Ravaux, the claimed compound contains an amino acid at position X5. Accordingly, Reboud-Ravaux does not anticipate the claimed invention.

B. Claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as anticipated by Hayashi *et al.* (Biochem. and Biophys. Res. Comm. 182: 939-946, 1992) ("Hayashi").

The Office Action alleges that Hayashi discloses a compound encapsulated by the claimed formula I of claim 1. The Office Action alleges that the disclosed compound benxyloxycarbonyl-Leu-Leu-Leu-aldehyde of Hayashi is encompassed by formula I of claim 1.

As discussed above, the claimed invention comprising formula I requires the presence of X3, X5, and X6. Hayashi does not disclose a compound having an amino acid at position X5. Accordingly, Hayashi cannot anticipate the claimed invention.

#### Conclusion

The foregoing amendments and remarks are being made to place the application in condition for allowance. Applicants respectfully request entry of the amendments, reconsideration and the timely allowance of the pending claims. A favorable action is awaited. Should the Examiner find that an interview would be helpful to further prosecution of this application, she is invited to telephone the undersigned at their convenience.

If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: **March 4, 2009**  
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Respectfully submitted,  
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